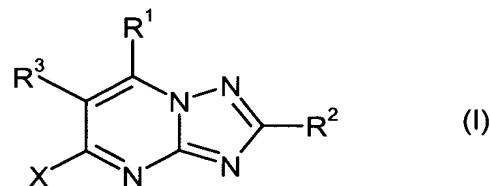


***Amendments to the Claims***

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) **Triazolo[4,3-d]pyrimidines A compound** of the formula



in which

R<sup>1</sup> represents optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, or optionally substituted heterocyclyl, which is linked via carbon,

R<sup>2</sup> represents hydrogen, halogen, optionally substituted alkyl, or optionally substituted cycloalkyl,

R<sup>3</sup> represents optionally substituted heterocyclyl,

X represents halogen, cyano, optionally substituted alkyl, optionally substituted alkoxy, optionally substituted alkylthio, optionally substituted alkylsulphanyl, or optionally substituted alkylsulphonyl.

2. (Currently amended) **Triazolo[4,3-d]pyrimidines of the formula (I) according to The compound of Claim 1**, in which

R<sup>1</sup> represents alkyl having 1 to 6 carbon atoms, which may be substituted one to five times, identically or differently, by halogen, cyano,

hydroxy, alkoxy having 1 to 4 carbon atoms, tri(C<sub>1</sub>-C<sub>4</sub> alkyl)silyl and/or or cycloalkyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, halogenalkyl having 1 or 2 carbon atoms and 1 to 5 halogen atoms and/or or alkyl having 1 to 4 carbon atoms, or

R<sup>1</sup> represents alkenyl having 2 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, cyano, hydroxy, alkoxy having 1 to 4 carbon atoms, tri(C<sub>1</sub>-C<sub>4</sub> alkyl)silyl and/or or cycloalkyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, halogenalkyl having 1 or 2 carbon atoms and 1 to 5 halogen atoms and/or or alkyl having 1 to 4 carbon atoms, or

R<sup>1</sup> represents alkynyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, cyano, alkoxy having 1 to 4 carbon atoms, tri(C<sub>1</sub>-C<sub>4</sub> alkyl)silyl and/or or cycloalkyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, halogenalkyl having 1 or 2 carbon atoms and 1 to 5 halogen atoms and/or or alkyl having 1 to 4 carbon atoms, or

R<sup>1</sup> represents cycloalkyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen, halogenalkyl having 1 or 2 carbon atoms and 1 to 5 halogen atoms and/or or alkyl having 1 to 4 carbon atoms, or

R<sup>1</sup> represents cycloalkenyl having 3 to 6 carbon atoms, which may be substituted one to three times, identically or differently by halogen and/or or alkyl having 1 to 4 carbon atoms, or

R<sup>1</sup> represents saturated or unsaturated heterocyclyl, linked via carbon, having 5 or 6 ring members and 1 to 3 heteroatoms, such as nitrogen, oxygen, and/or or sulphur, the heterocyclyl ~~able to be~~ optionally substituted once or twice by halogen, alkyl having 1 to 4 carbon atoms, cyano, nitro, alkoxy having 1 to 4 carbon atoms, cycloalkyl having 3 to 6 carbon atoms, halogenalkyl having 1 to 4 carbon atoms and 1 to 9 halogen atoms, and/or or halogenalkoxy having 1 to 4 carbon atoms and 1 to 9 halogen atoms

R<sup>2</sup> represents hydrogen, fluorine, chlorine, bromine, iodide, alkyl having 1 to 4 carbon atoms, halogenalkyl having 1 to 4 carbon atoms and 1 to 9 halogen atoms, or cycloalkyl having 3 to 6 carbon atoms,

R<sup>3</sup> represents saturated or unsaturated heterocyclyl having 5 or 6 ring members and 1 to 4 heteroatoms, such as oxygen, nitrogen and/or or sulphur, the heterocyclyl ~~being able to be~~ optionally substituted one to four times, identically or differently by fluorine, chlorine, bromine, cyano, nitro, alkyl, alkoxy, hydroximinoalkyl or alkoximinoalkyl each having 1 to 3 carbon atoms per alkyl part,

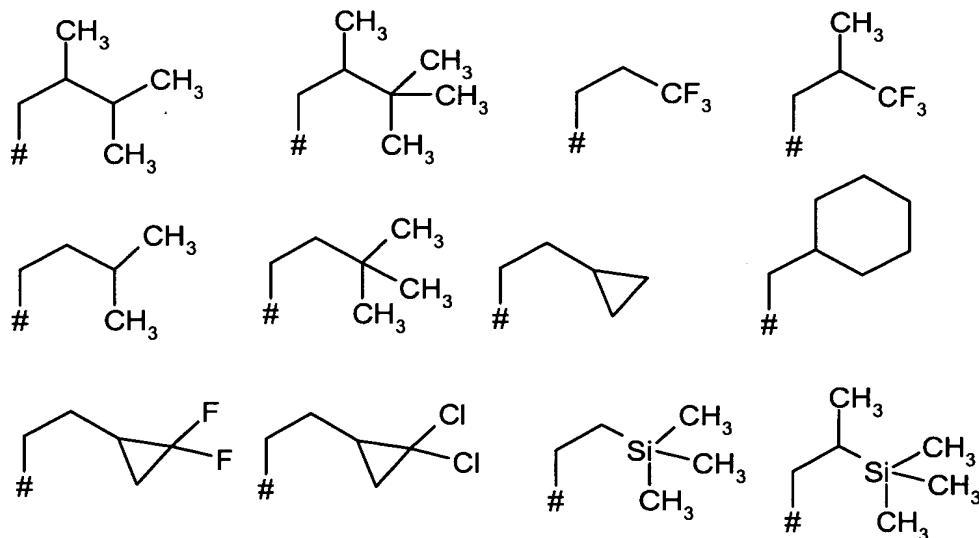
halogenalkyl or halogenalkoxy each having 1 to 3 carbon atoms and 1 to 7 halogen atoms,

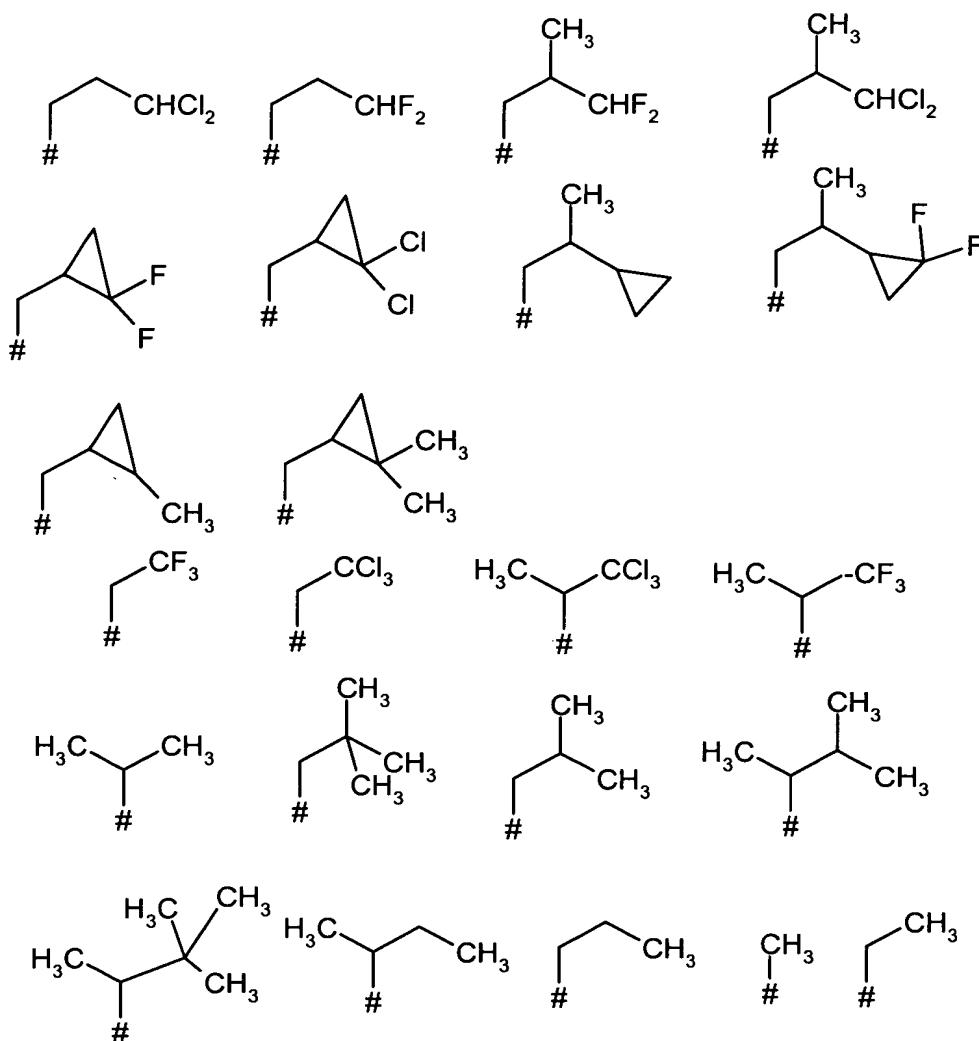
and

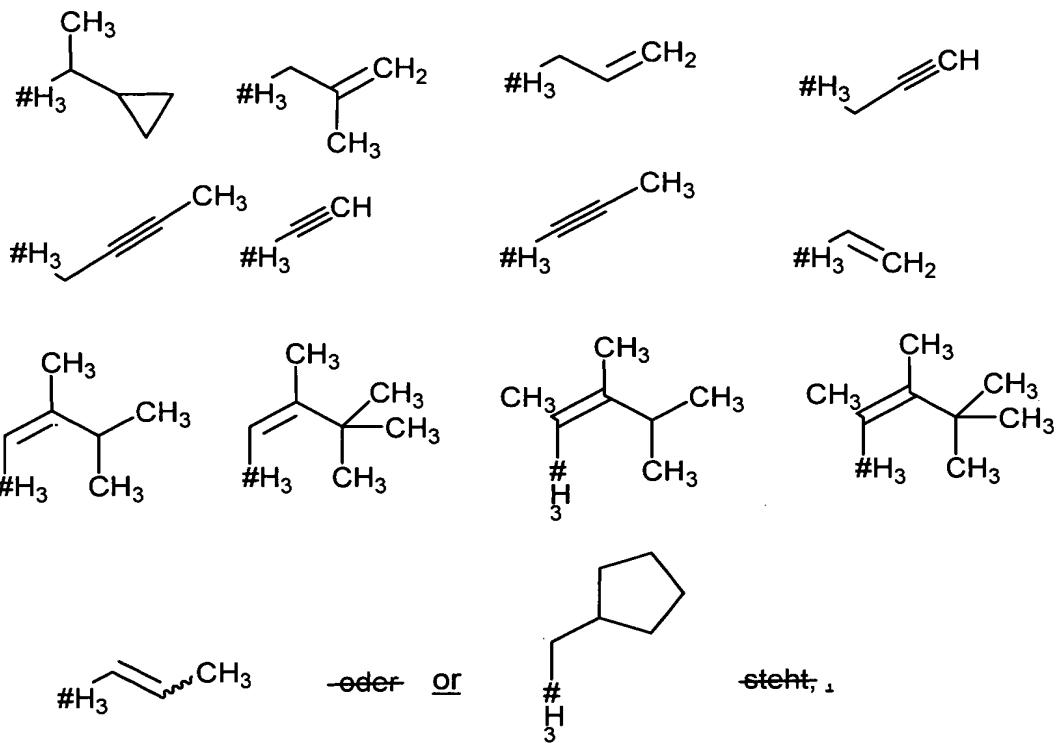
X represents fluorine, chlorine, bromine, cyano, alkyl having 1 to 4 carbon atoms, alkoxy having 1 to 4 carbon atoms, alkylthio having 1 to 4 carbon atoms, alkylsulphinyl having 1 to 4 carbon atoms, or alkylsulphonyl having 1 to 4 carbon atoms.

3. (Currently amended) Triazolo[4,3-d]pyrimidines of the formula (I) according to The compound of Claim 1 or 2, in which

R<sup>1</sup> represents a residue of the formula



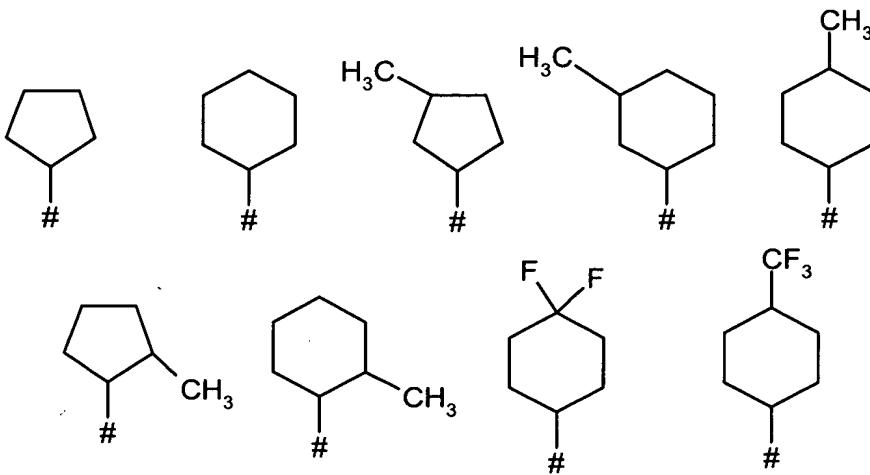


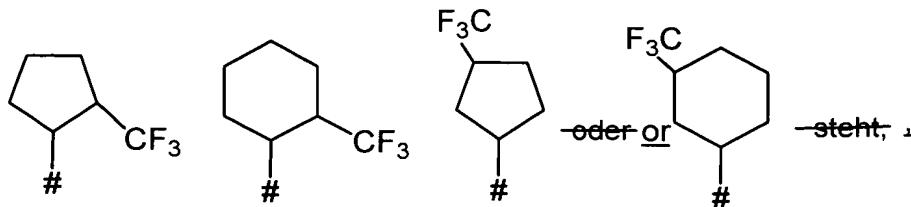


(Key: oder = or  
— steht = represents)

or

**R<sup>1</sup>** represents a residue of the formula

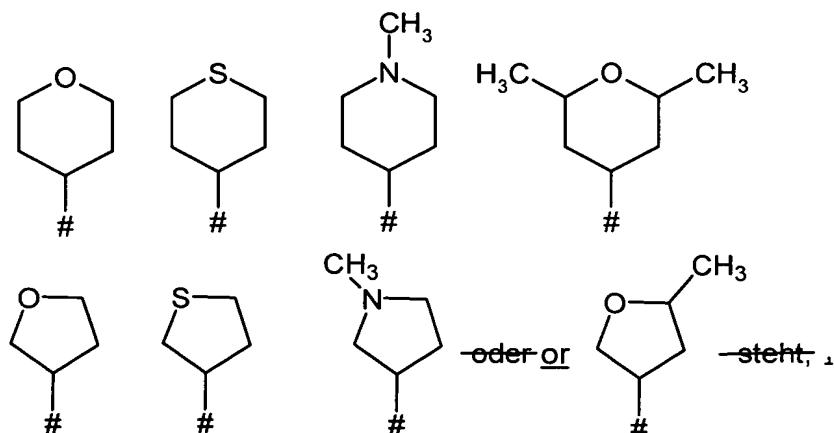




(Key: oder = or  
steht = represents)

or

R<sup>1</sup> represents a residue of the formula



(Key: oder = or  
steht = represents)

wherein # marking marks the linkage point in each case,

R<sup>2</sup> represents hydrogen, fluorine, chlorine, bromine, iodide, methyl, ethyl, isopropyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, trifluoromethyl, 1-trifluoromethyl-2,2,2-trifluorethyl, or heptafluoroisopropyl,

R<sup>3</sup> represents pyridyl, which is linked in the second or fourth position and may be substituted one to four times, identically or differently, by fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, methoxy,

methylthio, hydroximinomethyl, hydroximinoethyl, methoximinomethyl,  
methoximinoethyl and/or or trifluoromethyl, or

R<sup>3</sup> represents pyrimidyl, which is linked in the second or fourth position and  
may be substituted one to three times, identically or differently, by  
fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, methoxy,  
methylthio, hydroximinomethyl, hydroximinoethyl, methoximinomethyl,  
methoximinoethyl and/or or trifluoromethyl, or

R<sup>3</sup> represents thiaryl, which is linked in the second or third position and may  
be substituted one to three times, identically or differently, by fluorine,  
chlorine, bromine, cyano, nitro, methyl, ethyl, methoxy, methylthio,  
hydroximinomethyl, hydroximinoethyl, methoximinomethyl,  
methoximinoethyl and/or or trifluoromethyl, or

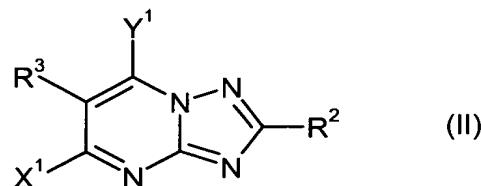
R<sup>3</sup> represents thiazolyl, which is linked in the second, fourth, or fifth position  
and may be substituted once or twice, identically or differently, by  
fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, methoxy,  
methylthio, hydroximinomethyl, hydroximinoethyl, methoximinomethyl,  
methoximinoethyl and/or or trifluoromethyl,

and

X represents fluorine, chlorine, bromine, cyano, methyl, methoxy, or methylthio.

4. (Currently amended) A method for producing triazolo[4,3-d]pyrimidines of the formula  
~~(I) according to one of Claims 1 through 3, characterized in that of preparing a~~  
compound of Claim 1 comprising:

(a) contacting dihalogen triazolopyrimidines of the formula



in which

R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> have the meanings specified in Claims 1 through 3,

X<sup>1</sup> represents halogen and

Y<sup>1</sup> represents halogen

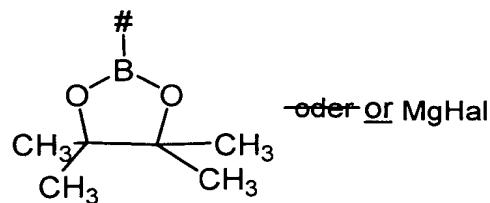
are reacted with metal compounds of the formula (III),



in which

R<sup>1</sup> has the meanings specified in Claims 1 through 3,

Me represents lithium, dihydroxyboranyl or a residue of the formula



(Key: oder = or)

wherein # marks the linkage point,

in which

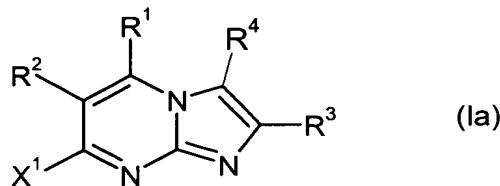
Hal represents chlorine or bromine,

optionally in the presence of a diluent,

optionally in the presence of an acid acceptor,

and

optionally in the presence of a catalyst and the triazolopyrimidines of the formula (Ia) thus obtained are optionally reacted



in which

$R^1$ ,  $R^2$ ,  $R^3$  and  $X^1$  have the meanings specified in Claims 1-~~through 3~~,

either

α) with compounds of the formula



in which

$R^4$  represents optionally substituted alkoxy, optionally substituted alkylthio, optionally substituted alkylsulphanyl, optionally substituted alkylsulphonyl, or cyano

$Me^1$  represents sodium or potassium,

optionally in the presence of a diluent,

or

β) with Grignard compounds of the formula



in which

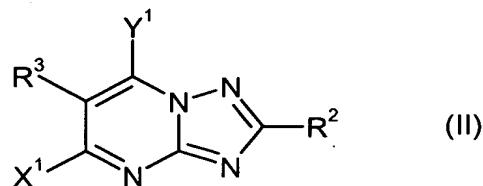
$R^5$  represents optionally substituted alkyl and

$Hal^1$  represents chlorine or bromine,

in the presence of a diluent.

5-8. (Canceled)

9. (Currently amended) Dihalogen triazolo pyrimidines A compound of the formula



in which

R<sup>2</sup> represents hydrogen, halogen, optionally substituted alkyl or optionally substituted alkyl cycloalkyl,

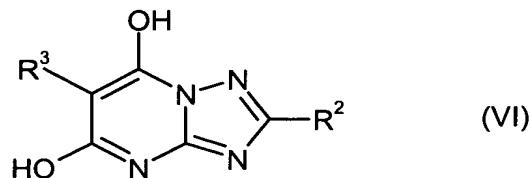
R<sup>3</sup> represents optionally substituted heterocyclyl,

X<sup>1</sup> represents halogen and

Y<sup>1</sup> represents halogen.

10. (Currently amended) A method for producing dihalogen triazolo pyrimidines of the formula (II) according to Claim 9, characterized in that preparing the compound of Claim 9 comprising:

(b) — dihydroxy triazolo pyrimidines contacting a compound of the formula

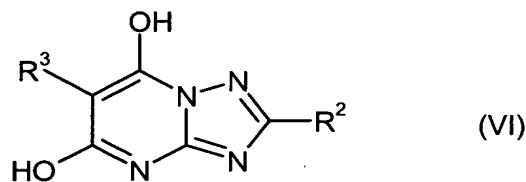


in which

R<sup>2</sup> and R<sup>3</sup> which have the meanings specified in Claim 9,

~~are reacted with halogenation agents, optionally in the presence of a diluent,~~  
wherein a compound of Claim 9 is prepared.

11. (Currently amended) ~~Dihydroxy triazolespyrimidines~~ The compound of  
Claim 10 of the formula



in which

R<sup>2</sup> represents hydrogen, halogen, optionally substituted alkyl or optionally substituted cycloalkyl,

R<sup>3</sup> represents optionally substituted cycloalkyl.

12. (Currently amended) A method for ~~producing dihydroxy triazolespyrimidines of~~  
~~the formula (VI) according to Claim 11, characterized in that preparing the compound of~~  
Claim 11, comprising:

(e) — heterocyclic malonic esters contacting a compound of the formula

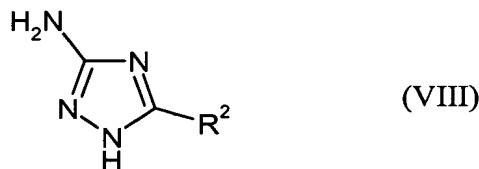


in which

R<sup>3</sup> has the meaning specified in Claim 11 and

R<sup>6</sup> represents alkyl having 1 to 4 carbon atoms,

~~are reacted with aminotriazoles with a compound~~ of the formula

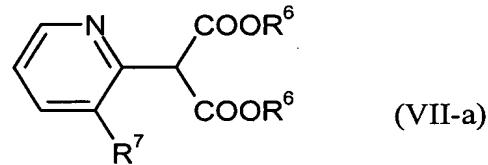


in which

R<sup>2</sup> has the meaning specified in Claim 11,

optionally in the presence of a diluent and optionally in the presence of an acid binder, wherein a compound of Claim 11 is prepared.

13. (Currently amended) Pyridyl malonic esters A compound of the formula



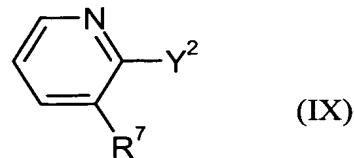
in which

R<sup>6</sup> represents alkyl having 1 to 4 carbon atoms and

R<sup>7</sup> represents halogen or halogenalkyl.

14. (Currently amended) A method for producing pyridyl malonic esters of the formula (VII-a) according to Claim 13, characterized in that preparing the compound of Claim 13 comprising:

(d) halopyridines contacting a compound of the formula

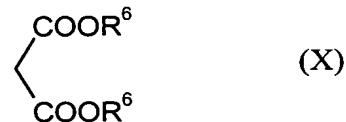


in which

$R^7$  has the meaning specified in Claim 13 and

$Y^2$  represents halogen,

~~are reacted with malonic esters of the formula~~

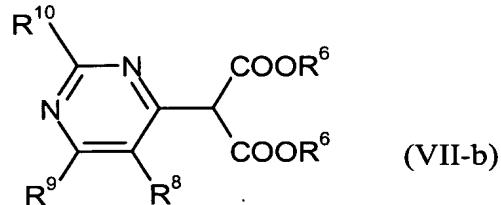


in which

$R^6$  has the meaning specified in Claim 13,

optionally in the presence of a diluent, optionally in the presence of a copper salt, and optionally in the presence of an acid acceptor, wherein a compound of Claim 13 is prepared.

15. (Currently amended) Pyrimidyl malonic esters A compound of the formula



in which

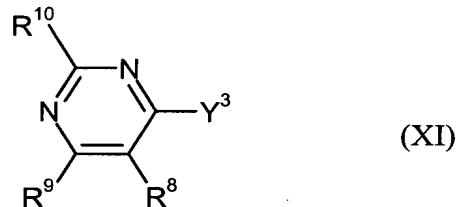
$R^6$  represents alkyl having 1 to 4 carbon atoms,

$R^8$  represents halogen or halogenalkyl, and

R<sup>9</sup> and R<sup>10</sup> independently of one another, represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or methoxy.

16. (Currently amended) A method for ~~producing pyrimidyl malonic esters of the formula (VII-b) according to Claim 15, characterized in that preparing the compound of~~ Claim 15, comprising:

(e) — halopyrimidines contacting a compound of the formula

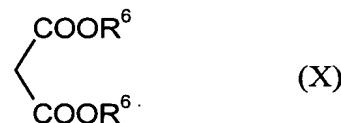


in which

R<sup>8</sup>, R<sup>9</sup> and R<sup>10</sup> have the meanings specified in Claim 15 and

Y<sup>3</sup> represents halogen,

~~are reacted with malonic esters of the formula~~



in which

R<sup>6</sup> has the meaning specified in Claim 15,

optionally in the presence of a diluent, optionally in the presence of a copper salt,

and optionally in the presence of an acid acceptor, wherein a compound of

Claim 15 is prepared.

17. (New) A composition comprising at least one compound of Claim 1.
18. (New) The composition of Claim 17, further comprising extenders and/or surfactants.
19. (New) A method for combating undesired micro-organisms, comprising contacting said micro-organisms or said micro-organisms' living space or both with the composition of Claim 17.
20. (New) A method for preparing the composition of Claim 18, comprising mixing one or more said compounds with said extenders and/or surfactants.